Gmail Bob Uttl <uttlbob@gmail.com>

Decision on your manuscript

Frontiers in Psychology <psychology.editorial.office@frontiersin.org> Fri, Feb 9, 2024 at 9:18 AM
Reply-To: Frontiers in Psychology <psychology.editorial.office@frontiersin.org>
To: uttlbob@gmail.com

Dear Dr Uttl,

Unfortunately, I have to inform you that your manuscript "Meta-analysis: On average, undergraduate students' intelligence is merely average" cannot be accepted for publication in Frontiers in Psychology, section Cognitive Science.

The reason for this decision is:
The manuscript could not be sufficiently revised by the authors to address the concerns raised by the reviewers or editor during the review process.

We are sorry to say that we are rejecting the manuscript in its current form. Following the abstract being published online, a number of overstated claims were brought to the attention of our Research Integrity team. These claims were raised to the Specialty Chief Editor, who has since highlighted issues with the reporting, methods and analysis and the scope fit for the journal that warrant rejection.

Reporting quality issues
Title:

The title is demeaning and uninformative. "merely" is a laden word, where the expectation was more. The title essentially says that the average is the average. This has no information. To have the title be informative, the first "average" in "on average" is to be read as "overall". The sentiment that the title brings may be deliberate, but there is no need to use tabloid-style titles for click-bait.
-> rephrase title to reflect the actual work

Abstract:

Again demeaning language is used. For example, under results it says "mere 102 IQ". Under discussion, it says "merely average". There is no need for this. Furthermore, the 6 points raised in this section without context can be too easily misinterpreted. It easily reads as "there is no point in going to university or to hire university graduates". This seems out of the realm of a meta-analysis.
In lines 77-82, the tone of the article is laid out and it is far from neutral. These lines also indicate that this article is not a meta-analysis, but for the most part an opinion piece.
The section between lines 84 and 127 is an all out attack on Gottfredson and Kaufman & Lichtenberger. This could have been packaged more sensitively. Instead, the authors add fuel to the fire and imply that Gottfredson and Kaufman & Lichtenberger are unscientific, unethical, and committed malpractice for not taking into account the Flynn effect.
Meta-Analysis:

The meta-analysis section seems to be completely separate from the introduction. The tone is radically different and it is complete within 2.5 pages (compared to 5.5 pages of inflammatory introduction).
Discussion:

The discussion is far too long and not focused on the actual meta-analysis. The discussion starts by stating that later Wechsler tests are harder than earlier tests. Yet, the meta-analysis did not take this into account. In and of itself, this influences the perceived decline in IQ over the years.
The first page of the discussion aims to give a neutral summary of the findings, but instead repeats the unfounded opinion that the widening participation policies of universities underlies to perceived decrease.
Methodological quality issues

Lines 198-202 contains an error, which is very wrong. It states "The basic laws of mathematics dictate that college students' and college graduates' IQs must have declined substantially over the last 80 years. For example, if 80% of the population pursues undergraduate education and if they have an average IQ of 115, the remaining 20% of the population would have to have an average IQ of 40 to maintain the average IQ of the entire population at 100."

This reasoning comes from this: If 80% have an IQ of 115, 20% have an IQ of X, and the total IQ is 100, then X = (100 -

0.8 x 115) / 0.2. However, the maximum average IQ of 80% of a distribution with mean 100 and standard deviation 15 is around 105 IQ points. Hence, the example of IQ of 115 from 80% of the population is mathematically impossible. To get 115 IQ points the example would have to use 38.5% of the population. This is more than half the number used in the example, defeating the illustration of a detrimental impact of those with IQ less than 100 on the overall student IQ. In particular, the IQ of the remaining 61.5% of the population is around 90.6 IQ points to bring the overall IQ to 100.

The calculation used by the authors does not take the distribution into account, leading to false interpretations. This should be corrected.

This same section also include many hints of the authors' opinion about the education and admission policies. In line 210, there is an unfounded use of "massive". In line 213, there is a suggestion of IQs having dropped "far below" where they once were, but no numbers are given. Crucially, there is no evidence presented in this section that "massive increases in college enrolments" is causing the drop in IQ of students. Yet, it is heavily implied in the narrative.

This latter point is again made in the opinionated paragraph in lines 228-237. There is no evidence presented that the IQ distribution differs between actual and normative data. Yet, the authors assumption is that it is and that it is due to colleges and universities admitting students with lower IQs.

The authors tried pursued the reader that universities are admitting students with an IQ less than 100 (line 287). However, they use SAT scores instead of IQ scores. They go to great lengths to then justify this usage. They presume that the mean of the SAT total is the point of an IQ of 100. In fact Frey and Detterman (2004) used regression equations that include and intercept of 40 or 50 IQ points. This greatly decreases the authors' claim that "a large proportion" of universities are admitting students with an IQ less than 100. Finally, in this section, the authors did not check the IQ distribution of students in the 1940s. Thus, there is no information presented on whether institutions at the time of 115 IQ points for undergraduates also admitted students with IQ less than 100.

Scope issues

The rest of the discussion has nothing to do with cognition or intelligence and is simply the senior author's frustration with the education system. This is again shown by picking out students who study Education having a lower IQ. The discussion also cites news sites and contains statements without references or evidence.

Note that this paper has nothing to say about cognition. It does not talk about intelligence as a cognitive faculty, but instead presents an opinion on institutional student admission policies. For this reason, it is out of scope.

You can access the review forum with the manuscript and comments using the following link:
https://review.frontiersin.org/review/bootstrap/a2292fcb-f30a-4fbb-abde-81d34b745ce3

Please note that should you choose to resubmit your manuscript to a Frontiers Journal/Specialty, it must be accompanied by a statement of resubmission inserted in the relevant textbox of the submission platform, and addressing the reasons for previous rejection or withdrawal, as well as highlighting any subsequent changes.

With best regards,

Frontiers in Psychology
Editorial Office, Frontiers in Psychology
https://www.frontiersin.org/

We want to hear about your experience with Frontiers.
We are constantly striving to improve our peer review process, please complete our short 3-minute survey to tell us about your experience, your opinion is important and will guide future development.
https://frontiersin.qualtrics.com/jfe/form/SV_aW5zUzZQ1ZbOKQ6?survey=authorrej&FinalDecision=Rejected&ArticleId=1309142&UserId=58188

If you encounter any technical issue, contact support@frontiersin.org, with Vop98YefTvmMLGK as reference.